

## NOMENCLATURAL CHANGES IN LESQUERELLA

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During the last twenty years there has been a gradual introduction into the International Code of Botanical Nomenclature of provisions for the automatic recognition of tautonymous names and epithets when a taxon in a category of infrafamilial rank (other than genus or species) is segregated from one of the next higher rank. In the Code adopted at Stockholm (Reg. Veg. 3: Arts. 34, 35. 1952) it was clearly stated that valid publication of the name of a taxon of infraspecific rank which does not include the type of the name of the taxon of the next higher rank automatically establishes in parallel the name of a second taxon of the same subordinate rank, this having the same type as does the name of the taxon of higher rank and the same epithet. At Paris similar provisions were made for categories of infrageneric rank (Reg. Veg. 8: Art. 22. 1956) and at Montreal for categories of infrafamilial rank (Reg. Veg. 23: Art. 19. 1961). However it soon became apparent that the very broad application of this useful principle to the name of any taxon which includes the nomenclatural type of the name of the taxon next higher in rank can give rise to complications.

Although the International Code of Botanical Nomenclature (Reg. Veg. 46: Arts. 2, 3. 1966) makes it clear that every Recent plant belongs to a species, a genus, and a family (as well as to an order, a class, and a division) it nowhere provides that a plant must belong to a subspecies or to a section, a series, or to a tribe. The use of such categories of intermediate, and optional, rank reflects only a recognition of the possibility of using more hierarchical steps within the framework of the required classification. The sweeping extension of the principle of automatic recognition of tautonyms to names of taxa in such optional ranks creates the possibility that a taxon with a particular circumscription, position and rank might have, according

to the classification used, two correct names. Classification and nomenclature are thus entangled in a way contrary to Principle IV of the Code. Such distressing situations were discussed by Wood & Webster (1968) and a series of carefully worded proposals intended to clarify matters was submitted to, and accepted by, the 11th International Botanical Congress in 1969. In essence, these modifications restrict the automatic recognition of tautonyms in the optional ranks to names of only those taxa which *do include* the type of the name of a species, a genus, or of a family. In the other optional ranks, strict priority of publication applies.

Difficulties arising from the entanglement of classification and nomenclature have come to light more often in dealing with categories ranked between family and genus, or between genus and species, than with those below the rank of species, and Wood & Webster were not entirely satisfied with the example used with their proposal for modification of Article 26, which deals with names of taxa of infra-specific rank, in the then current edition of the Code. In the course of our revision of the North American species of *Lesquerella* (in press), we made certain decisions resulting in our recognition of two subspecies of *Lesquerella lasiocarpa* (Hook. ex Gray) Watson, and, in that subspecies *not* including the type of the name of the species, of two varieties. We realized that one taxonomic decision in particular had produced precisely the situation Wood & Webster had in mind when proposing the change in Article 26. Since this is being used as an example in the forthcoming edition of the Code, we wish to make the necessary nomenclatural changes here and to provide some explanation of them. Our classification of *L. lasiocarpa* is summarized as follows:

(1) ***Lesquerella lasiocarpa* subsp. *lasiocarpa***

*Vesicaria lasiocarpa* Hook. ex Gray, *Smithson. Contrib. Knowl.* 5: 13. 1853. Type: Texas, between Bexar & Trinity River, *Berlandier* in 1828 (K)

- (2) **Lesquerella lasiocarpa** subsp. **berlandieri** (Gray) Rollins & Shaw, comb. nov.

*Synthlipsis berlandieri* Gray, Bot. Mex. Bound. Survey 34. 1859. Lectotype (here designated): Mexico. Tamaulipas, Matamoros, *Berlandier* 3017 (GH), isotypes (MO, US)

- (2a) **L. lasiocarpa** [subsp. **berlandieri**] var. **hispida** (Wats.) Rollins & Shaw, comb. nov.

*Synthlipsis berlandieri* var. *hispida* Wats., Proc. Amer. Acad. 17: 321. 1882. Holotype: locality uncertain, *Palmer* 26 (GH)

*S. berlandieri* Gray (see above)

*L. lasiocarpa* var. *berlandieri* (Gray) Payson, Ann. Missouri Bot. Gard. 8: 139. 1922

*L. lasiocarpa* var. *ampla* Rollins, Rhodora 57: 245. 1955. Holotype: Mexico. Tamaulipas, vicinity of Victoria, *Palmer* 41 (GH), isotype (NY)

- (2b) **L. lasiocarpa** [subsp. **berlandieri**] var. **heterochroma** (Wats.) Rollins, Rhodora 57: 245. 1955  
*Synthlipsis heterochroma* Wats., Proc. Amer. Acad. 17: 321. 1882

According to the provisions of the 1966 edition of the Code, it would have been necessary to use the name *L. lasiocarpa* [subsp. *berlandieri*] var. *berlandieri* [without an author — not “(Gray) Payson”] for that variety (2a) of subsp. *berlandieri* which includes the type of the name of the subspecies, no matter how it might be circumscribed, when recognizing taxonomically, as we do, this optional category. Still following the 1966 edition of the Code, if one chose not to adopt the category “subspecies” in classifying the infraspecific taxa of *Lesquerella lasiocarpa*, but used only “varietas,” the correct name for this taxon, still with the same circumscription, position, and rank, would be *L. lasiocarpa* var. *hispida* (Wats.) Rollins & Shaw. This is the earliest available epithet in the rank of variety for a taxon which does not include the type of the name of the taxon of next higher rank. Thus, depending upon the classi-

fication used (whether subspecies or not in the present instance), this one variety could have two correct names, a situation contrary to Principle IV.

The crux of the matter is our decision to circumscribe the variety which includes the type of the name *L. lasiocarpa* subsp. *berlandieri* so as to include *Synthlipsis berlandieri* var. *hispida* Watson. Article 26 as modified at Seattle now provides that use of a tautonymous epithet without citation of an author's name applies only to the names of taxa of infraspecific rank which do include the type of the name of the species to which they are assigned. Since variety 2a does not include the type of the name *L. lasiocarpa*, the earliest available epithet in varietal rank, if one such exists, must then be used for it, and in this case it is "hispida". In Payson's classification, based upon different criteria, *S. berlandieri* var. *hispida* was not placed in the synonymy of *S. berlandieri*, and he was thus quite correct in his use of the name *L. lasiocarpa* var. *berlandieri* (Gray) Payson. However, according to the Code as modified at Seattle, the taxon, as circumscribed by us, is to be called *Lesquerella lasiocarpa* var. *hispida* (Wats.) Rollins & Shaw.

## LITERATURE CITED

WOOD, C. E. & G. L. WEBSTER. 1968. Tautonyms and Confusion in the International Code. *Taxon* 17: 645-651.

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